



FLYING SAUCER OF THE FUTURE? A reproduction of an oil painting by Eugene M. Gluhareff, president of Gluhareff Helicopter & Airplane Corp. of Manhattan Beach, Calif., showing a "saucer-shaped" aircraft or space ship for exploring far beyond the earth's atmosphere and gravity field. Mr. Gluhareff portrays it operating "at moderate speed" over the New York-New England area and notes that in the painting "a propulsive blast of the electron beams from the rear of the saucer is visible, giving the saucer a translational force."

## Space-Ship Marvel Seen If Gravity Is Outwitted Speeds of Thousands of Miles An Hour Without a Jolt Held Likely

*This is the second of a series on new pure and applied research into the mysteries of gravity and efforts to devise ways to counteract it.*

By **Ansel E. Talbert**

*Military and Aviation Editor*

Scientists regard the earth today as a giant magnet. Many in America's aircraft and electronics industries are excited over the possibility of using its magnetic and gravitational fields as a medium of support for amazing "flying vehicles" which will not depend on the air for lift.

Space ships capable of accelerating in a few seconds to speeds many thousands of miles an hour and making sudden changes of course at these speeds without subjecting their passengers to the so-called "G-forces" caused by gravity's pull also are envisioned. These concepts are part of a new program to solve the secret of gravity and universal gravitation already in progress in many top scientific laboratories and long-established industrial firms of the nation.

### Nuclear Research Aids

Although scientists still know little about gravity and its exact relationship to electro-magnetism, recent nuclear research and experiments with "high-energy machines" such as the Brookhaven Cosmotron are providing a flood of new evidence believed to have a bearing on this.

William P. Lear, inventor and chairman of the board of Lear, Inc., one of the nation's largest electronic firms specializing in aviation, for months has been going over new developments and theories relating to gravity with his chief scientists and engineers.

Mr. Lear in 1950 received the Collier Trophy from the Presi-

dent of the United States "for the greatest achievement in aviation in America" through developing a lightweight automatic pilot and approach control system for jet fighter planes. He is convinced that it will be possible to create artificial electro-gravitational fields "whose polarity can be controlled to cancel out gravity."

He told this correspondent:

"All the 'mass,' materials and human beings within these fields will be part of them. They will be adjustable so as to increase or decrease the weight of any object in its surroundings. They won't be affected by the earth's gravity or that of any celestial body.

"This means that if any per-

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# Gravity

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son was in an anti-gravitational airplane or space ship that carried along its own gravitational field—no matter how fast you accelerated or changed course—your body wouldn't any more feel it than it now feels the speed of the earth."

Scientists and laymen for centuries have been familiar with the phenomena that "like" poles of two magnets—the north and north poles—for example—repel each other while "unlike" poles exert an attraction. In ancient times "lodestones" possessing natural magnetism were thought to possess magical powers.

## Faraday's Discoveries

But the nineteenth century discoveries of England's great scientist, Michael Faraday, paved the way for construction of artificial "electro-magnets" — in which magnetism is produced by means of electric currents. They retain it only so long as the current is flowing. An electro-magnet can be made by winding around a soft iron "core" a coil of insulated wire carrying electrical current. Its strength depends primarily on the number of turns in the coil rather than the strength of the current.

Even today America's rapidly expanding electronics industry is constantly finding new uses for electro-magnets. For example, Jack Fletcher, a young electronics and aeronautical engineer of West Covina, Calif., has just built a "Twenty-first Century Home" containing an electronic stove functioning by magnetic repulsion.

## Pan Floats in Air

In it seven coils of wire mounted on laminated iron cores are contained inside a plywood cabinet of blond mahogany. The magnetic field from these coils induces "eddy currents" in an aluminum cooking pan nineteen inches in diameter, which interact and lift the pan into space like a miniature "flying saucer."

The cooking pan floats about two inches in the air above the stove in a stabilized condition; "eddy currents" generate the heat that warms it while the stove top itself remains cold. The aluminum pan will hold additional pots and it can be used as a griddle. It is, of course, a variation of several other more familiar magnetic repulsion gadgets including the mysterious "floating metal ball" of science hall exhibits.

No type of electro-magnet known to science or industry would have any application to the building of a real aircraft or "flying vehicle." But one of America's most brilliant young experimental designers, Eugene M. Gluhareff, president of Gluhareff Helicopter and Airplane Corp. of Manhattan Beach, Calif., has made several theoretical design studies of round or saucer-shaped "vehicles" for travel into outer space, having atomic generators of electric power as their basic "engines."

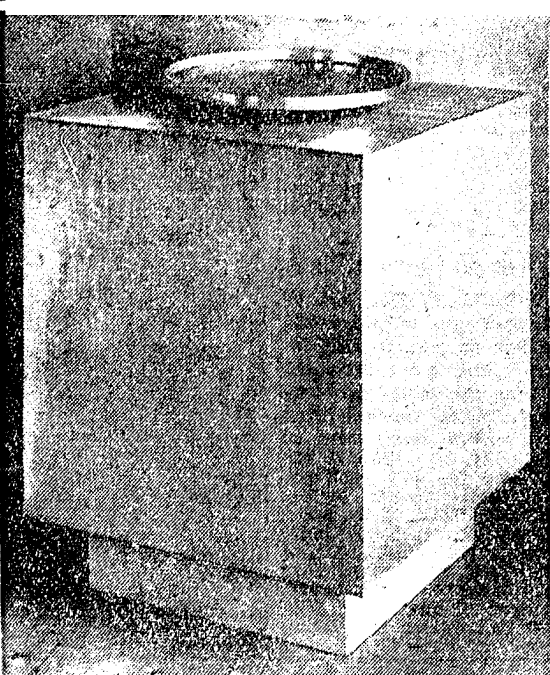
## Son of Copter Designer

Mr. Gluhareff is the son of Michael E. Gluhareff, chief designer for Dr. Igor I. Sikorsky, helicopter and multi-engined aircraft pioneer. Dr. Sikorsky and the elder Mr. Gluhareff, who has won the Alexander Klemin award, one of aviation's highest honors, are themselves deeply interested in the problem of overcoming gravitation.

The younger Mr. Gluhareff already has been responsible for several successful advanced designs of less amazing "terrestrial" aircraft. He envisions the electric power obtained from the atomic generators operating electronic reactors—"that is, obtaining propulsion by the acceleration of electrons to a very high velocity and expelling them into space in the same manner that hot gases are expelled from jet engines." Such an arrangement would not pollute the atmosphere with radio-active vapors.

## Could Control Acceleration

Because of its "long-lasting fuel," an atomic-electronic flying disk would be able to control its



**FLOATING COOKING PAN**—The "electronic stove" functioning by magnetic repulsion built by Jack Fletcher, a young engineer of West Covina, Calif. The aluminum cooking pan, nineteen inches in diameter, floats two inches above the cabinet like a miniature "flying saucer." It is completely stable while "hovering" and can be used as a griddle or as a holder for additional pots and pans. "Eddy currents" from a magnetic field created by an electromagnet inside the cabinet have warmed the pan—although the stove top remains completely cold.

acceleration to any speed desired and there would be no need for being "shot into space," according to Mr. Gluhareff. Radial electronic beams around the saucer's rim would be operating constantly and would sustain flight by "acting against gravity."

Mr. Gluhareff thinks that control can be achieved by a slight differentiation of the deflection of electronic beams in either direction; the beams would act in the same way as an orthodox airplane's ailerons and elevator.

## Gravitational Changes

Mr. Gluhareff agrees with Dr. Pascual Jordan, of Hamburg University, one of Europe's outstanding authorities on gravitation who proved many parts of the "Quantum Theory" of

Dr. Max Planck, that it will be possible to induce substantial changes in the gravitational fields of rotating masses through electro-magnetic research. Dr. Jordan has just signed a contract to do research for Martin Aircraft Corp. of Baltimore.

Norman V. Petersen guided missiles engineer of the Sperry Gyroscope Division of Sperry-Rand Corp., of Great Neck, L. I., who as president of the American Astronautical Society attended the recent "earth satellite" meeting in Copenhagen, corroborates the theory that "nuclear-powered — or solar-powered — ion-electron beam reactors — will give impetus to the conquest of space."

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(A third article will appear tomorrow.)